

⑫

**EUROPEAN PATENT APPLICATION**

⑮ Application number: 89120141.0

⑮ Int. Cl.<sup>5</sup>: **H04M 1/23**

⑯ Date of filing: 30.10.89

⑰ Priority: 03.11.88 US 266749

⑲ Date of publication of application:  
09.05.90 Bulletin 90/19

⑳ Designated Contracting States:  
**AT BE CH DE ES FR GB GR IT LI LU NL SE**

⑦ Applicant: **MOTOROLA INC.**  
**Motorola Center 1303 Algonquin Rd.**  
**Schaumburg Illinois 60196(US)**

⑧ Inventor: **Jungels-Butler, Polly Sue**  
**123 Borris Circle**  
**Streamwood Illinois 60107(US)**  
Inventor: **Beutler, Scott David**  
**1202 Monarch Lane**  
**Hoffman Estates Illinois 60195(US)**

⑦ Representative: **Holt, Michael et al**  
**MOTOROLA European Intellectual Property**  
**Operations, Jays Close, Viabes Ind. Estate**  
**Basingstoke, Hants, RG22 4PD(GB)**

③ Improved low profile rubber keypad.

⑤ A low-profile rubber keypad (100) with good tactile feel and illuminability includes a plurality of layers adhesively bonded to one another. The top layer (102) of the keypad is a silicone rubber overlay having a plurality of keys protruding therefrom. The rubber overlay (102) is adhesively bonded to an actuation layer (106) including a plurality of thin actuating strips. The actuation layer (106) is adhesively bonded to a tactile layer (110) including a plurality of collapsible resilient domes. The tactile layer (110) is adhesively bonded to a shorting layer (114) including a plurality of conductors (134). The shorting layer (114) is adhesively bonded to a flex circuit layer (118) including a plurality of conductors (136).

**EP 0 367 204 A2**